

No.

200800169



# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

**West Bred, LLC**

**Whereas,** THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

**WHEAT, COMMON**

**'Jedd'**

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixteenth day of May, in the year two thousand and eight.*

*Attest:*

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Secretary of Agriculture*

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER <b>WestBred, LLC</b>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME <b>BZ9M03-1044</b>	3. VARIETY NAME <b>Jedd</b>
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) <b>WestBred, LLC 81 Timberline Drive Bozeman, MT 59718</b>		5. TELEPHONE (include area code) <b>406-587-1218</b>	<b>FOR OFFICIAL USE ONLY</b> PVPO NUMBER <b>#200800169</b> FILING DATE <b>MARCH 20, 2008</b>
		6. FAX (include area code) <b>406-586-8247</b>	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) <b>Limited Liability Corporation</b>	8. IF INCORPORATED, GIVE STATE OF INCORPORATION <b>Arizona</b>	9. DATE OF INCORPORATION <b>August 4, 2003</b>	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) <b>Dr. Dale R. Clark WestBred, LLC 81 Timberline Drive Bozeman, MT 59718</b>			FILING AND EXAMINATION FEES: \$ <b>4,382.00</b> DATE <b>3/20/08</b> CERTIFICATION FEE: \$ <b>768.00</b> DATE <b>4/09/2008</b>
11. TELEPHONE (Include area code) <b>406-587-1218</b>	12. FAX (Include area code) <b>406-586-8247</b>	13. E-MAIL <b>dclark@westbred.com</b>	
14. CROP KIND (Common Name) <b>Common Wheat</b>	16. FAMILY NAME (Botanical) <b>Poaceae</b>	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP <b>Triticum aestivum</b>	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)		20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)	
a <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f <input checked="" type="checkbox"/> Exhibit F. Declaration Regarding Deposit g <input checked="" type="checkbox"/> Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) h <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		<input type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input checked="" type="checkbox"/> NO (If "no", go to item 23) <input type="checkbox"/> UNDECIDED	
		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
		22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	
25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.  The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.  Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF OWNER <b>Dale R. Clark for WestBred, LLC</b>		SIGNATURE OF OWNER	
NAME (Please print or type) <b>Dale R. Clark</b>		NAME (Please print or type)	
CAPACITY OR TITLE <b>Director of Research</b>	DATE <b>March 17, 2008</b>	CAPACITY OR TITLE	DATE

**GENERAL INSTRUCTIONS:** To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). **NEW:** With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. **Retain one copy for your files.** All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

**Plant Variety Protection Office**  
**Telephone:** (301) 504-5518 **FAX:** (301) 504-5291  
**General E-mail:** PVPOmail@usda.gov  
**Homepage:** <http://www.ams.usda.gov/science/pvpo/PVPindex.htm>

#### SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. <http://www.ams.usda.gov/lsg/seed.htm>.

#### ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
  - (2) the details of subsequent stages of selection and multiplication;
  - (3) evidence of uniformity and stability; and
  - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
  - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

**22. CONTINUED FROM FRONT** (Please provide a statement as to the limitation and sequence of generations that may be certified.)

**23. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

**United States - April 2007**

**24. CONTINUED FROM FRONT** (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

**US Pat. No's 5,369,022; 6,211,438; 6,211,439; 6,211,100; 6,33,184; & application No. 08/474,832**

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

## Jedd

### Hard Red Spring Wheat

#### 19.a. Exhibit A. Origin and Breeding History

Jedd was selected by WestBred, LLC as a BC3F3 row in 2003 from the cross 'BZ9M01-1015 \*4/Teal 11-a'. The final cross was made in the growth chamber in September, 2002. BZ9M01-1015 is a selection from the cross 'Hank//WestBred 926 \*2/ SWP 965-001. SWP 965-001 was developed by the Saskatchewan Wheat Pool and is the result of backcrossing the variety Grandin to the line SF-4. SF-4 was selected as a line that carried the gene, Als 1 (on chromosome 6D), which conveys resistance to the herbicide imidazolinone. This selection resulted directly from an induced mutation in the French variety "Fidel". This herbicide will suppress wheat and other grassy plants that do not carry a gene for resistance. Teal 11-a carries the gene, Als 2 (on chromosome 6B), which also conveys resistance to imidazolinone. This was an induced mutant in the Canadian variety, CDC Teal. Together, the two genes convey a good tolerance to the herbicide over a wide range of environments.

Seed from the F3 row selections were analyzed for bread wheat quality traits, i.e., % protein, test weight, and Sodium Dodecyl Sulfate (SDS) Sedimentation (an indicator of gluten strength). One such row with quality was given the experimental number, BZ9M03-1044. Seed of this selection was planted near Yuma, Arizona in the fall of 2003. Seed was also planted in WestBred's yield trial plots in Walla Walla, and Moses Lake, Washington and Bozeman, MT in the spring of 2004. F5 seed was harvested from the Yuma plot in late April, 2004 and planted in four 40 ft plots near Bozeman in May, 2004. Yield trial plots were observed for tolerance to stripe rust and Hessian fly infestations, and grain from the yield trials was again analyzed for bread wheat quality traits. BZ9M03-1044 was observed to be tolerant to the current races of stripe rust and biotypes of Hessian fly found in the Pacific Northwest. Grain quality characteristics were similar to the quality check varieties. Jedd was tested in WestBred, LLC's trials in 2005 through 2007 F6-F8, and in the Washington extension trials (Table 1.) and Montana State University trials (Table 2.) from 2005-2007. Grain quality of Jedd is presented in Tables 3 and 4.

Seed harvested from the 2004 Bozeman plots was planted on about one-quarter acre near Brawley, CA in the fall of 2004. Seed was harvested in late April of 2005 and designated 'Breeder' seed. The Breeder seed was planted on approximately 26 acres near Bozeman, MT in May, 2005. At this time the variety was given the name 'Jedd' ('J' is the 10<sup>th</sup> letter of the alphabet, 'd' is the 4<sup>th</sup> letter, add the vowel 'e', and 10 4 4 becomes 'Jedd'). Foundation and Registered seed was harvested from



**Jedd****Hard Red Spring Wheat**

this field. Registered seed was planted in the spring of 2006 to produce Certified seed. The first unencumbered sale of Jedd occurred in April 2007.

A variant that is similar to "Jedd", but has a tan (or reddish chaff color) occurs at a frequency of up to .10% (10 per 10,000 plants). Also, a white seed variant may occur at a frequency of up to .18% (18 seeds per 10,000). Otherwise, "Jedd" is uniform and stable in appearance and performance across several generations (F4 – F8) and environments.

**19.b. Exhibit B. Statement of Distinctness**

Jedd is most similar to the variety Hank. However, Jedd carries two genes for resistance to the herbicide imidazolinone (Als 1 and Als 2) and Hank does not. Also, the glumes of Jedd have elevated shoulders and those of Hank have rounded shoulders. The above comparisons, along with a complete Objective Description (Exhibit C) show Jedd to be a novel variety of hard red spring wheat.

**Table 1. Mean of yield and other agronomic characteristics of Jedd compared to check varieties in Washington State University Extension Trials in 2006-2007 (32 locations).**

Variety	Test Weight	% Protein	Yield (bu/ac)
Jedd	60.4	14.5	53.0
Hank	58.4	14.9	56.0
Tara 2002	59.4	14.8	56.1
Jerome	59.5	14.2	53.5

**Table 2 . Yield and other Agronomic traits of Jedd compared to check varieties in Montana State University Yield Trials from 2005-2007.**

Variety	Yield bu/ac 2005-2007			TW lbs/bu	Protein %	Heading Date	Plant Ht.
	Irrigated	Dryland	All Locations	2005-2007	2005-2007	2005-2007	2005-2007
location-years	11	18	29	29	29	29	29
<b>JEDD</b>	<b>68.6</b>	<b>48.3</b>	<b>56.0</b>	<b>60.1</b>	<b>13.9</b>	<b>172</b>	<b>28</b>
MCNEAL	59.6	44.9	50.4	57.9	14.3	175	33
REEDER	69.8	47.9	56.2	59.9	14.5	173	33
HANK	70.2	47.5	56.1	57.1	14.2	172	31
CHOTEAU	65.7	46.7	53.9	59.3	14.3	174	31



**Jedd**  
Hard Red Spring Wheat

**#200800169**

**Table 3. 2005 Advanced Spring Wheat Yield Trial Mill & Bake - Montana State University**  
Location: Means Across Locations (Bozeman, Havre, Sidney dryland, Moccasin)

Pedigree	Flour Analysis				Mixograph Analysis				Bake Analysis				Crumb Grain Score
	Wheat Protein, % (12% m.b.)	Single Kernel Hardness	Flour Protein, % (14% m.b.)	Flour Yield, %	Flour Ash, %	Wheat Ash, %	Mixing Tolerance	Mixing Time, min	Mixing Water Absorption, %	Bake Mixing Time, min	Bake Water Absorption, %	Loaf Volume	
JEDD	14.4	89.5	67.0	13.4	0.48	1.75	5.0	5.0	64.0	7.8	74.2	1171	3.8
MCNEAL	15.0	90.6	65.1	13.7	0.44	1.82	6.0	6.2	64.9	10.0	77.0	1220	3.3
Reeder	14.6	80.1	67.0	13.8	0.39	1.64	3.5	3.3	61.6	4.1	71.7	1119	3.5
HANK	14.1	71.2	66.7	13.3	0.43	1.80	4.8	6.2	63.3	9.5	74.7	1178	3.5
CHOTEAU	13.7	74.3	67.0	13.0	0.37	1.60	4.5	3.6	63.2	5.6	73.2	1155	3.8

**Table 4. 2006 Advanced Spring Wheat Yield Trial Mill & Bake - Montana State University**  
Location: Means Across Locations (Bozeman, Havre, Sidney (3103), Moccasin)

Pedigree	Flour Analysis				Mixograph Analysis			Bake Analysis					
	Wheat Protein, % (12% m.b.)	Single Kernel Hardness	Flour Protein, % (14% m.b.)	Flour Yield, %	Flour Ash, %	Wheat Ash, %	Mixing Tolerance	Mixing Time, min	Mixing Water Absorption, %	Bake Mixing Time, min	Bake Water Absorption, %	Crumb Volume	Grain Score
JEDD	14.7	90.1	66.3	13.2	0.49	1.67	4.50	4.98	64.13	8.00	74.70	1151	3.75
MCNEAL	15.1	92.4	64.0	13.3	0.49	1.75	5.75	6.08	64.40	9.53	76.35	1208	4.00
Reeder	14.8	80.7	65.3	13.2	0.42	1.59	3.50	3.80	62.95	5.05	73.03	1148	3.50
HANK	14.8	73.9	66.5	13.7	0.46	1.68	4.25	6.70	64.15	9.68	74.60	1174	3.75
CHOTEAU	15.0	74.8	65.8	13.6	0.42	1.60	3.75	3.80	63.83	5.18	73.15	1191	3.50



According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY  
Wheat (*Triticum* spp.)

NAME OF APPLICANT (S) West Bred, LLC	TEMPORARY OR EXPERIMENTAL DESIGNATION BZ 9m03-1044	VARIETY NAME Jedd
ADDRESS (Street and No. or RD No., City, State, Zip Code and Country) 81 Timberline Drive Bozeman, MT 59718		FOR OFFICIAL USE ONLY PVPO NUMBER #200800169

## PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g., 0 9 9 or 0 9 ) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: . Please answer all questions for your variety; lack of response may delay progress of your application.

## 1. KIND:

☐ 1

- 1 = Common  
2 = Durum  
3 = Club  
4 = Other (Specify) \_\_\_\_\_

## 2. VERNALIZATION:

☐ 1

- 1 = Spring  
2 = Winter  
3 = Other (Specify) \_\_\_\_\_

## 3. COLEOPTILE ANTHOCYANIN:

☐ 1

1 = Absent

2 = Present

## 4. JUVENILE PLANT GROWTH:

☐ 3

1 = Prostrate

2 = Semi-Erect

3 = Erect

## 5. PLANT COLOR: (boot stage)

☐ 3

- 1 = Yellow-Green  
2 = Green  
3 = Blue-Green

## 6. FLAG LEAF: (boot stage)

☐ 2

1 = Erect

2 = Recurved

☐ 2

1 = Not Twisted

2 = Twisted

☐ 2

1 = Wax Absent

2 = Wax Present

## 7. EAR EMERGENCE:

☐ 056

Number of Days (Average)

☐

Number of Days Earlier Than \*

Same As

☐

Number of Days Later Than \*

\*Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

## 8. ANTHOR COLOR:

☐ 1

1 = Yellow

2 = Purple

## 9. PLANT HEIGHT: (from soil to top of head, excluding awns)

671

cm (Average)

cm Taller Than

Same As

08

cm Shorter Than

Hank

## 10. STEM:

## A. ANTHOCYANIN

1

1 = Absent 2 = Present

## B. WAXY BLOOM

2

1 = Absent 2 = Present

## C. HAIRINESS (last internode of rachis)

2

1 = Absent 2 = Present

## D. INTERNODE

1

1 = Hollow 2 = Semi-Solid 3 = Solid

4

Number of Nodes

## E. PEDUNCLE

1

1 = Erect 2 = Recurved 3 = Semi-Erect

29

cm Length

## F. AURICLE

2

Anthocyanin: 1 = Absent 2 = Present

2

Hair: 1 = Absent 2 = Present

## 11. HEAD: (At Maturity)

## A. DENSITY

2

1 = Lax  
2 = Middense (Laxidense)  
3 = Dense

## B. SHAPE

2

1 = Tapering  
2 = Strap  
3 = Clavate  
4 = Other (Specify)

## C. CURVATURE

2

1 = Erect  
2 = Inclined  
3 = Recurved

## D. AWNEDNESS

4

1 = Awnless  
2 = Apically Awnletted  
3 = Awnletted  
4 = Awned

## 12. GLUMES: (At Maturity)

## A. COLOR

1

1 = White  
2 = Tan  
3 = Other (Specify)

## B. SHOULDER

5

1 = Wanting 2 = Oblique  
3 = Rounded 4 = Square  
5 = Elevated 6 = Apiculate  
7 = Other (Specify)

## C. SHOULDER WIDTH

2

1 = Narrow  
2 = Medium  
3 = Wide

## D. BEAK

3

1 = Obtuse  
2 = Acute  
3 = Acuminate

## E. BEAK WIDTH

2

1 = Narrow  
2 = Medium  
3 = Wide

## F. GLUME LENGTH

3

1 = Short (ca. 7 mm)  
2 = Medium (ca. 8 mm)  
3 = Long (ca. 9 mm)

## G. WIDTH

3

1 = Narrow (ca. 3 mm)  
2 = Medium (ca. 3.5 mm)  
3 = Wide (ca. 4 mm)

## H. PUBESCENCE

2

1 = Not Present  
2 = Present



## 13. SEED:

## A. SHAPE

- ☒ 3 1 = Ovate  
2 = Oval  
3 = Elliptical

## B. CHEEK

- ☒ 1 1 = Rounded  
2 = Angular

## C. BRUSH

- ☒ 2 1 = Short  
2 = Medium  
3 = Long
- ☒ 1 1 = Not Collared  
2 = Collared

## D. CREASE

- ☒ 1 1 = Width 60% or less of Kernel  
2 = Width 80% or less of Kernel  
3 = Width Nearly as Wide as Kernel

- ☒ 1 1 = Depth 20% or less of Kernel  
2 = Depth 35% or less of Kernel  
3 = Depth 50% or less of Kernel

## E. COLOR

- ☒ 3 1 = White  
2 = Amber  
3 = Red  
4 = Other (Specify) \_\_\_\_\_

## F. TEXTURE

- ☒ 1 1 = Hard  
2 = Soft  
3 = Other (Specify) \_\_\_\_\_

## G. PHENOL REACTION (See Instructions)

- ☒ 4 1 = Ivory 4 = Dark Brown  
2 = Fawn 5 = Black  
3 = Light Brown

## H. SEED WEIGHT

- ☒ 38 g/1000 Seed (whole number only)

## I. GERM SIZE

- ☒ 2 1 = Small  
2 = Midsize  
3 = Large

## 14. DISEASE: PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

(0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> 0 Stem Rust ( <i>Puccinia graminis</i> f. sp. <i>tritici</i> ) | <input type="checkbox"/> 0 Leaf Rust ( <i>Puccinia recondita</i> f. sp. <i>tritici</i> )                      |
| <input checked="" type="checkbox"/> 3 Stripe Rust ( <i>Puccinia striiformis</i> )                  | <input type="checkbox"/> 0 Loose Smut ( <i>Ustilago tritici</i> )   |
| <input type="checkbox"/> 0 Tan Spot ( <i>Pyrenophora tritici-repentis</i> )                        | <input type="checkbox"/> 0 Flag Smut ( <i>Urocystis agropyri</i> )  |
| <input type="checkbox"/> 0 Halo Spot ( <i>Selenophoma donacis</i> )                                | <input type="checkbox"/> 0 Common Bunt ( <i>Tilletia tritici</i> or <i>T. laevis</i> )                        |
| <input type="checkbox"/> 0 <i>Septoria nodorum</i> (Glume Blotch)                                  | <input type="checkbox"/> 0 Dwarf Bunt ( <i>Tilletia controversa</i> )   |
| <input type="checkbox"/> 0 <i>Septoria avenae</i> (Speckled Leaf Disease)                          | <input type="checkbox"/> 0 Kamal Bunt ( <i>Tilletia indica</i> )  |
| <input type="checkbox"/> 0 <i>Septoria tritici</i> (Speckled Leaf Blotch)                          | <input type="checkbox"/> 0 Powdery Mildew ( <i>Erysiphe graminis</i> f. sp. <i>tritici</i> )                  |
| <input type="checkbox"/> 0 Scab ( <i>Fusarium</i> spp.)  | <input type="checkbox"/> 0 "Snow Molds"   |
| <input type="checkbox"/> 0 "Black Point" (Kernel Smudge)   | <input type="checkbox"/> 0 Common Root Rot ( <i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.) |
| <input type="checkbox"/> 0 Barley Yellow Dwarf Virus (BYDV)  | <input type="checkbox"/> 0 Rhizoctonia Root Rot ( <i>Rhizoctonia solani</i> )                                 |
| <input type="checkbox"/> 0 Soilborne Mosaic Virus (SBMV)   | <input type="checkbox"/> 0 Black Chaff ( <i>Xanthomonas campestris</i> pv. <i>translucens</i> )               |
| <input type="checkbox"/> 0 Wheat Yellow (Spindle Streak) Mosaic Virus                              | <input type="checkbox"/> 0 Bacterial Leaf Blight ( <i>Pseudomonas syringae</i> pv. <i>syringae</i> )          |
| <input type="checkbox"/> 0 Wheat Streak Mosaic Virus (WSMV)  | <input type="checkbox"/> 0 Other (Specify) _____  |
| <input type="checkbox"/> 0 Other (Specify) _____   | <input type="checkbox"/> 0 Other (Specify) _____  |
| <input type="checkbox"/> 0 Other (Specify) _____   | <input type="checkbox"/> 0 Other (Specify) _____  |
| <input type="checkbox"/> 0 Other (Specify) _____   | <input type="checkbox"/> 0 Other (Specify) _____  |

## 15. INSECT: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> 4 Hessian Fly ( <i>Mayetiola destructor</i> ) | <input type="checkbox"/> 0 Other (Specify) _____ |
| <input checked="" type="checkbox"/> 1 Stem Sawfly ( <i>Cephus</i> spp.)           | <input type="checkbox"/> 0 Other (Specify) _____ |
| <input type="checkbox"/> 0 Cereal Leaf Beetle ( <i>Oulema melanopa</i> )          | <input type="checkbox"/> 0 Other (Specify) _____ |

Jedd

#200800169

Exhibit C (Wheat)

15. INSECT: (continued) (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (Where Needed)

☐ Russian Aphid (*Diuraphis noxia*)

☐ Greenbug (*Schizaphis graminum*)

☐ Aphids

☐ Other (Specify) \_\_\_\_\_

☐ Other (Specify) \_\_\_\_\_

☐ Other (Specify) \_\_\_\_\_

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E**  
**STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S)  WestBred, LLC	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER  BZ9M03-1044	3. VARIETY NAME  Jedd
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 81 Timberline Drive Bozeman, MT 59718	5. TELEPHONE (Include area code)  (406) 587-1218	6. FAX (Include area code)  (406) 586-8247
7. PVPO NUMBER		<b>#200800169</b>

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

**PLEASE NOTE:**

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

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Form Approved OMB NO 0581-0055

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U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT F  
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S) WestBred, LLC	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 81 Timberline Drive Bozeman, MT 59718	TEMPORARY OR EXPERIMENTAL DESIGNATION BZ9M03-1044
		VARIETY NAME Jedd
NAME OF OWNER REPRESENTATIVE (S) Dale R. Clark	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 81 Timberline Drive Bozeman, MT 59718	FOR OFFICIAL USE ONLY
		PVPO NUMBER #200800169

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Dale R. Clark  
Signature

March 17, 2008  
Date